

FILE 'USPAT' ENTERED AT 18:06:50 ON 09 AUG 94

=> s coupon (p) exchang?

2439 COUPON
165947 EXCHANG?

L1 88 COUPON (P) EXCHANG?

=> s 11 and bar code

204687 BAR
80852 CODE

5017 BAR CODE
(BAR(W) CODE)
11.1.1 AND BAR CODE

L2 11 L1 AND BAR CODE

=> d 1-11

Electronic redemption of coupons

1. 5,283,734, Feb. 1, 1994, System and method of communication with authenticated wagering participation; Henry Von Kohorn, 364/412; 273/138A [IMAGE AVAILABLE]
2. 5,256,863, Oct. 26, 1993, In-store universal control system; William L. Ferguson, et al. 235/383; 364/405 [IMAGE AVAILABLE]
401 402
3. 5,250,789, Oct. 5, 1993, Shopping' cart; Edward L. Johnsen, 235/383, 385, 462; 340/825.35; 364/401 [IMAGE AVAILABLE]
4. 5,231,568, Jul. 27, 1993, Promotional game method and apparatus therefor; Leopold Cohen, et al., 364/401; 273/138A; 364/410 [IMAGE AVAILABLE]
5. 5,227,874, Jul. 13, 1993, Method for measuring the effectiveness of stimuli on decisions of shoppers; Henry Von Kohorn, 348/2, 13; 364/402; 455/2, 4.2 [IMAGE AVAILABLE]
6. 5,226,519, Jul. 13, 1993, Multiple use commodity collection and storage system; Bruce H. DeWoolfson, 194/209, 212 [IMAGE AVAILABLE]
7. 5,161,661, Nov. 10, 1992, Reverse vending apparatus having improved article rotating mechanism; Nathan J. Hammond, 194/209; 209/524, 583 [IMAGE AVAILABLE]
8. 5,152,387, Oct. 6, 1992, Reverse vending apparatus having improved article crushing mechanism; Nathan J. Hammond, 194/208; 100/176, 902 [IMAGE AVAILABLE]
9. 5,057,915, Oct. 15, 1991, System and method for attracting shoppers to sales outlets; Henry Von Kohorn, 348/13; 273/85R; 348/8; 455/2, 5.1 [IMAGE AVAILABLE]
10. 5,008,519, Apr. 16, 1991, Foolproof coupon redemption system; William R. Cunningham, et al., 235/383, 487 [IMAGE AVAILABLE]

11. 4,573,641, Mar. 4, 1986, Glass bottle collection and crushing apparatus; Bruce H. DeWoolfson, et al., 241/36; 194/205; 241/99, 100
[IMAGE AVAILABLE]

SUMMARY:

BSUM(18)

The . . . two sets of information. The information may be provided on a tape or card in printed lettering and/or in a **bar** **code** format to show the value of any award which might be given, and a verification of the fact that the. . . .

DETDESC:

DETD(165)

In . . . within the dispenser 360 can provide for imprinting in the form of alphanumeric and symbolic indicia, or by means of **bar** **code** or color code. By way of example, the printers 390 and 392 may be constructed as dot-matrix printers. If desired,. . . .

DETDESC:

DETD(191)

It is also noted that the card 362 with data encrypted by use of **bar** **code** or color code or magnetic recording can be machine readable. This permits use of the card in an automatic dispenser. . . .

DETDESC:

DETD(194)

By . . . 364 (FIGS. 6 and 8) outputted by the dispenser 360 of the response unit 310 may be imprinted with a **bar** **code**, as portrayed in FIG. 6. The **bar** **code** may be read by a scanner 404. The reading of the scanner 404 may be transmitted to a receiver 406. . . .

DETDESC:

DETD(352)

The term "redeem" is intended to include the collection of a prize by delivering or presenting a **coupon** personally, through the mail, or other forms of obtaining a prize or discount upon surrendering or in **exchange** for a **coupon**.

DETDESC:

DETD(436)

In . . . are already available for cooperation with the inventive system for providing these functions of crediting and debiting. Bar codes and **bar** **code** readers may also be employed in which case the **bar** **code** is imprinted on a ticket along with data imprinted with alphanumeric characters to be readable by a player.

SUMMARY:

BSUM(13)

The . . . of coupon or food stamp information is typically performed manually by a cashier. At best, vouchers are handled using a **bar** **code** reader to enter a portion of the information encoded on the coupon face (e.g., bar encoded value of a coupon) . . .

DETDESC:

DETD(28)

In a preferred embodiment, a second 6303 processor 34 is provided for controlling **bar** **code** decoding, magnetic stripe reading (MSR), and for driving a terminal interface which represents a keyboard wedge. In an alternate embodiment, . . .

DETDESC:

DETD(40)

c. Auto-Discriminating **Bar** **Code** Reader

DETDESC:

DETD(41)

An auto-discriminating **bar** **code** scanning device 52 is accessible on the cashier side of the lane terminal device for scanning vouchers from any source (e.g., manufacturers coupons). The **bar** **code** reader is also capable of scanning any bar encoded media including lottery ticket play slips or tokens in an alternate preferred embodiment. A fixed mounted contact or near contact **bar** **code** reader capable of reading standard bar codes and including high density Code 128 is provided in a preferred embodiment.

DETDESC:

DETD(42)

An exemplary **bar** **code** reader suitable for use in a preferred embodiment is the Welch Allyn BCR Card Reader, Specification No. 16205303, available from Welch Allyn, Inc., Skaneatels Falls, N.Y. This **bar** **code** reader can read and decode coupons having UPC (number system 5), check digits and 2 and 5 digit supplemental (i.e., suffix) codes. Because the auto-discriminating **bar** **code** reader of the lane terminal device can read any **bar** **code**, coupon redemption is not limited to targeted coupons generated within the store. Further, coupon reading is not limited to family. . . .

DETDESC:

DETD(43)

More . . . information) and, in some cases, coupon value information. Where value information is not included on the coupon, the lane terminal

bar **code** reader reads only the family code information. The universal system controller, in response to an absence of value information, generates. . .

DETDESC:

DETD(67)

In . . . to the player which contains the requested numbers. This token is, for example, a slip of paper printed with a **bar** **code** representing the selected numbers and the number of games.

DETDESC:

DETD(68)

Alternately, the token is a card containing a magnetic stripe in which the selection is encoded. If a **bar** **code** is used, a high density symbology such as code 128 is used to accommodate multiple games and as many as. . .

DETDESC:

DETD(69)

Existing laser scanners used to check out groceries can not read and interpret a dense **bar** **code** such as code 128. However, in preferred embodiments of a lane terminal device, the dense **bar** **code** can be read and decoded by the aforementioned **bar** **code** reader for transfer to the universal system controller. The universal system controller receives and recognizes the lottery ticket information just. . .

DETDESC:

DETD(91)

Further, the universal system controller connects to an in-store **coupon** destruction device 20 and to an out-of-store central site 22 over a wide area link 24. The central site is a system used to monitor, maintain, and update in-store controller databases. For example, it is used to consolidate **coupon** and frequent shopper data and to update check approval databases. The central site can also be connected with central lottery computers, bank databases for EFT and foreign currency **exchange** rate databases.

DETDESC:

DETD(93)

As . . . includes the processor 11 and databases 13. To accommodate the functionality of the lane terminal devices, databases are provided for **coupon** family code, check approval, purchase transactions, frequent shopper benefits, coupons tendered, currency **exchange** rates, lottery ticket records and permissible electronic benefits transfer (i.e., food stamp) users. Any or all of databases can be. . .

DETDESC:

DETD(102)

The coupon destruction device is a freestanding or desktop unit. It contains a controller, **bar** **code** scanner, mechanical gate, and a destruction device (e.g., a modified paper shredder). In a preferred embodiment, coupons are collected and. . .

DETDESC:

DETD(130)

Coupons are scanned through the auto-discriminating **bar** **code** reader integrated into each of the lane terminal devices. As mentioned above, the **bar** **code** reader reads coupon codes and any suffix codes as indicated in block 300 of FIG. 10. As in the case. . .

DETDESC:

DETD(133)

The lane terminal reads and decodes the coupon bar codes. The **bar** **code** data is bundled together with appropriate protocol statements and transmitted to the universal system controller via the system controller network. . .

DETDESC:

DETD(134)

In an alternate embodiment, the back room processor can also parse the **bar** **code** data into its component parts as mentioned above. The component parts are then assembled in a database for subsequent transmission. . .

DETDESC:

DETD(138)

In . . . in-store cash register. The amount of the credit is determined based on a table look-up which translates from the coupon **bar** **code** data to an actual dollar amount. This total will include any in-store bonuses identified for particular products in an in-store. . .

DETDESC:

DETD(148)

Regardless . . . The checker swipes the token over or through the appropriate input device such as the magnetic stripe reader or the **bar** **code** scanner at the lane terminal device. The checker returns the token to the customer, who may keep it and reuse. . .

CLAIMS:

CLMS(5)

5. A system according to claim 1, wherein said lane terminal device further includes:
a **bar** **code** scanner for inputting bar encoded information.

US PAT NO: 5,250,789 [IMAGE AVAILABLE]

L2: 3 of 11

SUMMARY:

BSUM(7)

There . . . some products and services presently available to help consumers organize their coupons and to facilitate access to additional coupons. In-store **exchange** tables are provided in the store by retailers to allow shoppers to swap coupons they do not want for coupons they want to use, but these tables usually display low value and less desirable coupons. There are some **coupon** **exchange** **coupon** programs available via mail. They permit the consumer to **exchange** coupons he would ordinarily discard for coupons he wishes to use. **Coupon** organizing pouches and file folders are designed to help the consumer organize by type. Computerized **coupon** dispensers are placed in stores for consumers to obtain additional coupons.

DETDESC:

DETD(4)

With . . . all, to scan an identification card 52 provided to each shopper. The identification card 52 can be provided with a **bar** **code** symbol 54 which is unique to any particular shopper. The **bar** **code** symbol is scanned by scanner 22. The system may then determine whether the shopper is authorized to make use of. . . .

DETDESC:

DETD(5)

The . . . catalogs with a list of the goods sold by the store. Each good may be accompanied by its UPC product **bar** **code**. A customer may then scan the UPC codes for those products selected for purchase thereby inputting those into the display. . . . to keep track of the coupons in the shopper's possession simply by using the scanner 22 to scan each coupon **bar** **code**.

DETDESC:

DETD(12)

A . . . containing all of the UPC product bar codes for each of the products on sale in the store. For each **bar** **code** the memory includes a description of the product, the aisle number in which the product is shelved and the price. . . . *

DETDESC:

DETD(15)

Referring . . . floppy disk 68 for inputting into the shopping

display system 10. The home computer system can be provided with a **bar** **code** scanner 66.

DETDESC:

DET D(17)

Referring to FIG. 7, an identification card 52 for use with the present invention is shown. The identification card includes a **bar** **code** with a unique number to identify each shopper. By requiring an identification card to be scanned before use of the. . .

US PAT NO: 5,231,568 [IMAGE AVAILABLE]

L2: 4 of 11

DETDESC:

DET D(3)

The . . . 2 or 38 as shown in FIG. 3, into slot 22 of game machine 10. Game card 32 has a **bar**-**code** section 34 bearing a unique code representing a particular patron. Preferably, the **bar**-**code** section 34 will also include a portion coded with information on the establishment or chain of establishments in which the. . .

DETDESC:

DET D(8)

The patron takes his game card and inserts it into slot 22 of game machine 10 which reads the code in **bar** **code** section 34 on game card 32 or the code on magnetic stripe 40 of game card 38. The portion of. . .

DETDESC:

DET D(16)

In . . . appearances, the maintenance cards are the same as game cards 32 or 38, except that the coded information appearing in **bar** **code** sections 34 or magnetic stripes 40 are not game card codes, but rather are instruction codes recognizable by game machine. . .

CLAIMS:

CLMS(10)

10. A method as claimed in claim 9, wherein each one of said game cards is coded with a unique **bar**-**code** series.

CLAIMS:

CLMS(19)

19. A method as claimed in claim 18, wherein the step of awarding a prize includes the step of issuing a **coupon** by said machine **exchangeable** for said prize.

US PAT NO: 5,227,874 [IMAGE AVAILABLE]

L2: 5 of 11

DETDESC:

DETD(165)

In . . . within the dispenser 360 can provide for imprinting in the form of alphanumeric and symbolic indicia, or by means of **bar** **code** or color code. By way of example, the printers 390 and 392 may be constructed as dot-matrix printers. If desired, . . .

DETDESC:

DETD(191)

It is also noted that the card 362 with data encrypted by use of **bar** **code** or color code or magnetic recording can be machine readable. This permits use of the card in an automatic dispenser. . .

DETDESC:

DETD(194)

By . . . 364 (FIGS. 6 and 8) outputted by the dispenser 360 of the response unit 310 may be imprinted with a **bar** **code**, as portrayed in FIG. 6. The **bar** **code** may be read by a scanner 404. The reading of the scanner 404 may be transmitted to a receiver 406. . .

DETDESC:

DETD(348)

The term "redeem" is intended to include the collection of a prize by delivering or presenting a **coupon** personally, through the mail, or other forms of obtaining a prize or discount upon surrendering or in **exchange** for a **coupon**.

DETDESC:

DETD(434)

In . . . are already available for cooperation with the inventive system for providing these functions of crediting and debiting. Bar codes and **bar** **code** readers may also be employed in which case the **bar** **code** is imprinted on a ticket along with data imprinted with alphanumeric characters to be readable by a player.

DETDESC:

DETD(493)

The . . . controlling the printer. The said record can have other configurations and can also, by itself, constitute or comprise a discount **coupon** or cash voucher. In order to ensure the surrendering of said record to a retail outlet or other organizer of. . . value, which may be a discount, cash, free samples, etc. According to a preferred method, the said cumulative record is **exchanged** by a shopper for a new matrix at the same time the paper tape which serves as the matrix for. . . a

number of spaces on the side shown in FIG. 34-A equal to the number of coupons 1008 comprising the **coupon** matrix tape.

US PAT NO: 5,226,519 [IMAGE AVAILABLE]

L2: 6 of 11

DETDESC:

DETD(7)

Within . . . be provided to sense a container, and a laser scanning mechanism may be provided to scan indicia such as a **bar** **code** on a label of the container. A light source assembly, as disclosed in U.S. Pat. No. 4,919,534, the description of. . .

DETDESC:

DETD(15)

Each . . . push button on the front panel of each machine may be used to activate a coin dispenser, token dispenser, or **coupon** printer installed within the machine. Examples of such dispensers are described and illustrated in the patents of applicant's assignee, the. . . to reduce the need for maintaining a supply of coins or currency in the machine, it is preferred that a **coupon** printing means be utilized for printing and issuing redeemable coupons or vouchers in response to the commodities received and verified by the pre-selection means. These coupons can be later **exchanged** for merchandise or cash, thereby eliminating the need for storing currency or coins in the machine. This in turn leads. . . less break-ins of the machines as it becomes known that nothing of value can be removed from the machine. Such **coupon** printing mechanisms are known in the art and may be readily incorporated in the machine by those skilled in the. . .

DETDESC:

DETD(20)

As . . . (106), and the consumer must insert another can to continue. When an aluminum can is present, the machine reads the **bar** **code** on the can (107, 108). Thereafter, additional messages can be optionally printed for particular manufacturers, if desired (109, 110). When. . .

DETDESC:

DETD(21)

In . . . protective door (201), and the customer may be required to rotate the container to allow for proper reading of the **bar** **code** label (202, 203, 204, 205). Another optional routine is shown in FIG. 11A regarding the acceptability of the container as. . .

DETDESC:

DETD(22)

The . . . way as the glass machine 12, as shown in FIGS. 12A and 12B. In particular, the insertion sequence and the **bar** **code** reading are the same. Thereafter, there is no color recognition step necessary,

and the machine goes directly to the shredding. . . .

US PAT NO: 5,161,661 [IMAGE AVAILABLE]

L2: 7 of 11

ABSTRACT:

A . . . returnable beverage containers includes a housing (12) having an opening (20) through which an empty beverage container is inserted in **exchanger** for a redeemable **coupon**. Inside the housing (12), a V-shaped support trough cradles the container while a conveyor belt (38) rotates the container. An. . . identify its origin, and upon recognition that the container is properly returnable electronically signals the apparatus (10) to issue a **coupon**. The container falls from the support trough and is diverted by a moveable diverter (60) plate to either of two. . . .

DETDESC:

DETD(4)

As . . . A video display screen 26 provides written instructions to the user. A dispenser 28 dispenses the value, either cash or **coupon**, in **exchange** for a properly returnable article A.

DETDESC:

DETD(6)

An . . . in a computer. Preferably, the identifier means 32 comprises an optical scanner which accounts for the size, shape, color, UPC **bar** **code**, and label indicia while making the determination whether the article A is properly returnable. If the article A is identified. . . .

US PAT NO: 5,152,387 [IMAGE AVAILABLE]

L2: 8 of 11

ABSTRACT:

A . . . returnable beverage containers includes a housing (12) having an opening (20) through which an empty beverage container is inserted in **exchanger** for a redeemable **coupon**. Inside the housing (12), a V-shaped support trough cradles the container while a conveyor belt (38) rotates the container. An. . . identify its origin, and upon recognition that the container is properly returnable electronically signals the apparatus (10) to issue a **coupon**. The container falls from the support trough and is diverted by a moveable diverter (60) plate to either of two. . . .

DETDESC:

DETD(4)

As . . . A video display screen 26 provides written instructions to the user. A dispenser 28 dispenses the value, either cash or **coupon**, in **exchange** for a properly returnable article A.

DETDESC:

DETD(6)

An . . . in a computer. Preferably, the identifier means 32 comprises an optical scanner which accounts for the size, shape, color, UPC **bar** **code**, and label indicia while making the determination whether the article A is properly returnable. If the article A is identified. . .

US PAT NO: 5,057,915 [IMAGE AVAILABLE]

L2: 9 of 11

SUMMARY:

BSUM(17)

The . . . two sets of information. The information may be provided on a tape or card in printed lettering and/or in a **bar** **code** format to show the value of any award which might be given, and a verification of the fact that the. . .

DETDESC:

DETD(166)

In . . . within the dispenser 360 can provide for imprinting in the form of alphanumeric and symbolic indicia, or by means of **bar** **code** or color code. By way of example, the printers 390 and 392 may be constructed as dot-matrix printers. If desired,. . .

DETDESC:

DETD(192)

It is also noted that the card 362 with data encrypted by use of **bar** **code** or color code or magnetic recording can be machine readable. This permits use of the card in an automatic dispenser. . .

DETDESC:

DETD(196)

By . . . 364 (FIGS. 6 and 8) outputted by the dispenser 360 of the response unit 310 may be imprinted with a **bar** **code**, as portrayed in FIG. 6. The **bar** **code** may be read by a scanner 404. The reading of the scanner 404 may be transmitted to a receiver 406. . .

DETDESC:

DETD(351)

The term "redeem" is intended to include the collection of a prize by delivering or presenting a **coupon** personally, through the mail, or other forms of obtaining a prize or discount upon surrendering or in **exchange** for a **coupon**.

US PAT NO: 5,008,519 [IMAGE AVAILABLE]

L2: 10 of 11

ABSTRACT:

A . . . electronically controlled, and compatible in any supermarket using Universal Product Codes. The system includes a newly-styled,

uniform coupon, with special **bar** **code** indicia redeemable on up to three families of products. At the supermarket, a special device for reading the coupons is. . .

SUMMARY:

BSUM(5)

Thus . . . half of the problem has been addressed. Another obstacle of substantial proportion, which threatens the overall productivity and efficacy of **coupon** usage, is that of fraud. One estimate of fraudulent **coupon** redemption given a few years ago is that at least \$350 million a year is lost through coupons unlawfully redeemed. . . place in a number of ways. Firstly, an overbearing customer can intimidate a young cash register operator into accepting a **coupon** for the wrong size product, for a different brand, or for an entirely different product. Particularly in larger and busier. . . the register personnel may have the opportunity to slip a stack of their own coupons into the cash register and **exchange** them for cash. Also, the retailer can accumulate, through any number of methods, quantities of coupons and present them to the **coupon** clearing houses for payment. The vain warning which appears on many coupons, "Invoices showing purchase of adequate stock to cover. . . coupons redeemed must be shown upon request," would be so astronomically costly to enforce, that there is much room for **coupon** cheating.

DETDESC:

DETD(2)

The . . . uniform size, and may contain the usual product pictures and wording as currently shown on coupons, but must have a **bar**-**code** strip unique to the present invention along a side edge of the coupon. (The coupon may contain the currently implemented. . . coupon UPC somewhere else on the coupon to retain compatibility on UPC systems not equipped with the present invention.) The **bar** **code** strip is made up in the following manner:

DETDESC:

DETD(19)

Referring . . . inserted. For example, if a coupon is inserted with the bar codes facing down, the coupon will not trigger the **bar**-**code** optical sensor within the preset time T(s). Therefore, a rejection sequence (Block 60) of the coupon is initiated. If the. . .

DETDESC:

DETD(20)